

IN THE CLAIMS:

1. (PREVIOUSLY PRESENTED) A method of logical modeling operator interaction with a programmable logic controller logical verification system, said method comprising the steps of:

constructing a flowchart of interaction of an operator in a workcell using a computer;

testing the flowchart by a PLC logical verification system on the computer as to whether logic of the flowchart is correct; and

using the flowchart to test PLC code and building the workcell if the logic of the flowchart is correct.

2. (ORIGINAL) A method as set forth in claim 1 wherein the step of testing comprises starting a timer and determining whether the operator interaction of the flowchart is completed within a predetermined time.

3. (ORIGINAL) A method as set forth in claim 2 wherein the step of testing includes initializing the operator interaction of the flowchart prior to starting the timer.

4. (ORIGINAL) A method as set forth in claim 3 wherein said step of testing includes idling the operator prior to starting the timer.

5. (PREVIOUSLY PRESENTED) A method as set forth in claim 1 wherein said step of constructing comprises constructing a series of commands for the operator using the computer.

6. (ORIGINAL) A method as set forth in claim 5 wherein the commands have at least one resource.

7. (ORIGINAL) A method as set forth in claim 6 wherein the at least one resource has at least one capability.

8. (ORIGINAL) A method as set forth in claim 1 wherein the step of testing includes executing the commands when a timer is started.

9. (PREVIOUSLY PRESENTED) A method of logical modeling operator interaction with a programmable logic controller logic verification system, said method comprising the steps of:

constructing a flowchart of a series of commands for an operator in a workcell using a computer;

starting a timer and executing the commands by a PLC logical verification system on the computer to test whether logic of the flowchart is correct; and

using the flowchart to test PLC code and building the workcell if the logic of the flowchart is correct.

10. (ORIGINAL) A method as set forth in claim 9 wherein the step of testing includes determining whether the commands of the flowchart are completed within a predetermined time.

11. (ORIGINAL) A method as set forth in claim 10 wherein the step of testing includes initializing the operator interaction of the flowchart prior to starting the timer.

12. (ORIGINAL) A method as set forth in claim 11 wherein said step of testing includes idling the operator prior to starting the timer.

13. (ORIGINAL) A method as set forth in claim 9 wherein said step of constructing comprises constructing commands having at least one resource.

14. (ORIGINAL) A method as set forth in claim 13 wherein the at least one resource has at least one capability.

15. (PREVIOUSLY PRESENTED) A method of logical modeling operator interaction with a programmable logic controller logic verification system, said method comprising the steps of:

constructing a flowchart of a series of commands having at least one resource with at least one capability for an operator in a workcell using a computer;

initializing the operator interaction and idling the operator;

starting a timer, executing the commands by a PLC logical verification system on the computer, and determining whether the commands are completed within a predetermined time to test whether logic of the flowchart is correct; and

using the flowchart to test PLC code and building the workcell if the logic of the flowchart is correct.